IN THE CLAIMS

1. (Previously amended) A semiconductor package for enhancing heat dissipation, comprising:

a die having an active surface;

a leadframe, including:

a die pad having a first surface and a second surface, said die being attached to said first surface of the die pad; and

a plurality of leads electrically connected to the active surface of said die and separated from said die pad, said leads having a first surface and a second surface opposite the first surface;

an encapsulant sealing said die and at least a portion of the first surface of the leads in said leadframe but not sealing the second surface of the leads; and

a heat sink attached to the second surface of said die pad and at least a portion of the second surface of leads in said plurality of leads with a thermally conductive and electrically insulating adhesive glue, said heat sink being constructed as a body whose entire outer surface is exposed to ambient atmosphere and no portion of said heat sink is in contact with said encapsulant.

2. (Previously presented) The semiconductor package of Claim 1, wherein said heat sink is made of material selected from the group consisting of copper, copper alloy, aluminum or aluminum alloy.

3. (Previously presented) The semiconductor package of Claim 1, wherein said adhesive glue is selected from the group consisting of epoxy, B-stage epoxy or silicone.

4. (Previously presented) The semiconductor package of Claim 1, wherein said leadframe is of a cavity-up or cavity-down type of leadframe.

5. (Previously presented) The semiconductor package of Claim 4, wherein said heat sink further comprises a heat radiator on its top and said leadframe is a cavity-down type of leadframe.

6. (Previously presented) A semiconductor package of claim 1, manufactured by the steps of:

(a) attaching said die to the first surface of said die pad and electrically connecting the active surface of said die to the plurality of leads;

(b) adding encapsulant to an upper mold for sealing said die and one portion of the first surface of said plurality of leads;

(c) attaching said heat sink to the second surface of said die pad and at least one portion of the second surface of leads in said plurality of leads with the thermally conductive and electrically insulating adhesive glue and with the thermally conductive and electrically insulating adhesive glue and

(d) forming and singulating said leadframe.

7. (Previously presented) The semiconductor package of Claim 6, wherein in step (d), said leadframe is a cavity-up or cavity-down type of leadframe.

8. (Previously amended) A semiconductor package for enhancing heat dissipation, comprising:

a die having an active surface;

a leadframe, including:

a central-hole die pad having a first surface and a second surface, said first surface being attached to said die; and

a plurality of leads electrically connected to the active surface of said die and separated from said die pad, said leads having a first surface and a second surface opposite the first surface;

an encapsulant sealing one portion of the first surface of said plurality of leads and said die in said leadframe but not sealing the second surface of the leads; and

a heat sink having a T-type structure including a portion extending in a hole of said die pad and attached to said second surface of said die by a thermally conductive and electrically insulating adhesive glue, said heat sink also being attached to the second surface of said die pad and at least a portion of the second surface of leads in said plurality of leads with said thermally conductive and electrically insulating adhesive glue, said heat sink being constructed as a body whose entire outer surface is exposed to ambient atmosphere and no portion of said heat sink is in contact with said encapsulant.

9. (Previously presented) The semiconductor package of Claim 8, wherein said heat sink is made of a material selected from the group consisting of copper, copper alloy, aluminum or aluminum alloy.

10. (Previously amended) The semiconductor package of Claim 8, wherein said adhesive glue is made of material selected from the group consisting of epoxy, B-stage epoxy or silicone.

11. (Previously presented) The semiconductor package of Claim 8, wherein said leadframe is of a cavity-up or cavity-down type of leadframe.

12. (Previously presented) The semiconductor package of Claim 11, wherein the top of said heat sink further comprises a heat radiator and said leadframe is a cavity-down type of leadframe.

13. (Previously presented) The semiconductor package of claim 8, manufactured by the steps of:

(a) attaching said die to the first surface of said die pad and electrically connecting the active surface of said die to the plurality of leads;

(b) adding encapsulant to an upper mold for sealing said die and one portion of the first surface of said plurality of leads;

(c) attaching said heat sink to the second surface of said die pad and at least one portion of the second surface of leads in said plurality of leads with

said thermally conductive and electrically insulating adhesive glue; and

(d) forming and singulating said leadframe.

14. (Previously presented) The semiconductor package of Claim 13, wherein in step (d), said leadframe is of a cavity-up or cavity-down type leadframe.

15. (Previously amended) A semiconductor package for enhancing heat dissipation, comprising:

a die having an active surface;

a plurality of leads electrically connected to the active surface of said die, said leads having a first surface and a second surface opposite the first surface;

an encapsulant sealing said die and at least a portion of the first surface of said leads but not sealing the second surface of the leads; and

a heat sink attached to at least a portion of the second surface of leads in said plurality of leads with a thermally conductive and electrically insulating adhesive glue, said heat sink being constructed as a body whose entire outer surface is exposed to ambient atmosphere and no portion of said heat sink is in contact with said encapsulant.

16. (Previously presented) The semiconductor package of Claim 15, wherein said heat sink is made of a material selected from the group consisting of copper, copper alloy, aluminum or aluminum alloy.

17. (Previously presented) The semiconductor package of Claim 15, wherein said adhesive glue is made of selected from the group consisting of epoxy, B-stage epoxy or silicon.

18. (Previously presented) The semiconductor package of Claim 15, wherein said leads are a part of a leadframe of a cavity-up or cavity-down type.

19. (Previously presented) The semiconductor package of Claim 18, wherein the top of said heat sink further comprises a heat radiator and said plurality of leads is a part of a cavity-down type of leadframe.

20. - Cancelled